Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-2 (cancelled).

Claim 3 (currently amended): A system for detecting errors in balance related screening tests, the system comprising:

a force-plate for measuring forces applied by a subject to determine a quantity related to ~~a stability factor of~~ a balance task performed ~~in trials~~ by [[a]] the subject in trials under a plurality of distinct sensory conditions; and

a computation device in communication with the force-plate, the computational device

(i) receiving the quantity related to the ~~stability factor~~ balance task for each trial,

(ii) determining a rank order for the quantities, each quantity for each trial being associated with a rank, and

(iii) determining if any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial performed under error-free conditions.

Claim 4 (original): A system according to claim 3, further comprising a display device in communication with the computational device for indicating an instance wherein any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial.

Claim 5 (cancelled).

Claim 6 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, wherein the statistical quantity represents a value associated with an average.

Claim 7 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, wherein the statistical quantity represents a value associated with a standard deviation.

Claim 8 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, wherein the statistical quantity represents a value associated with a standard error.

Claim 9 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, wherein the statistical quantity represents a value associated with a power spectrum.

Claim 10 (currently amended): A method ~~according to any of claims 13-15~~, for detecting a screening-test error, the method comprising:

measuring at least one performance parameter related to at least one screening-test task performed by a subject; and

calculating at least one performance statistical quantity characterizing the measured performance parameter; and

comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test, wherein:

(i) the screening-test task is a balance task;

(ii) the at least one performance parameter is a quantity related to vertical force applied to a force plate;

(iii) the at least one performance statistical quantity corresponds to an average of a mathematical derivative of the total vertical force applied to the force plate; and

(iv) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the average deviates from zero by a predetermined threshold value,

wherein the statistical quantity represents a value associated with a root mean square.

Claim 11 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, wherein the statistical quantity represents a value associated with a frequency histogram.

Claim 12 (cancelled).

Claim 13 (currently amended): A method for detecting a screening-test error, the method comprising:

measuring at least one performance parameter related to at least one ~~screening test~~ balance task performed by a subject; and

calculating at least one performance statistical quantity characterizing the measured performance parameter; and

comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test, wherein:

~~(i) the screening-test task is a balance task;~~

~~(ii)~~ (i) the at least one performance parameter is a quantity related to vertical force applied to a force plate by the subject;

~~(iii)~~ (ii) the at least one performance statistical quantity corresponds to a moving window average value for total vertical force applied to the force plate; and

~~(iv)~~ (iii) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the moving window average value deviates from a constant value by a predetermined threshold value.

Claim 14 (currently amended): A method for detecting a screening-test error, the method comprising:

measuring at least one performance parameter related to at least one ~~screening test~~ balance task performed by a subject; and

calculating at least one performance statistical quantity characterizing the measured performance parameter; and

comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test, wherein:

~~(i) the screening test task is a balance task;~~

~~(ii)~~ (i) the at least one performance parameter is a quantity related to vertical force applied to a force plate by the subject;

~~(iii)~~ (ii) the at least one performance statistical quantity corresponds to an average of a mathematical derivative of the total vertical force applied to the force plate; and

~~(iv)~~ (iii) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the average deviates from zero by a predetermined threshold value.

Claim 15 (currently amended): A method for detecting a screening-test error, the method comprising:

measuring at least one performance parameter related to at least one ~~screening test~~ balance task performed by a subject; and

calculating at least one performance statistical quantity characterizing the measured performance parameter; and

comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test, wherein:

~~(i) the screening test task is a balance task;~~

~~(ii)~~ (i) the at least one performance parameter is a quantity related to horizontal force applied to a force plate by the subject;

~~(iii)~~ (ii) the at least one performance statistical quantity corresponds to an average of a mathematical derivative of the total horizontal force applied to the force plate; and

~~(iv)~~ (iii) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the average deviates from zero by a predetermined threshold value.

Claim 16 (currently amended): A method according to ~~any of claims 13-15~~ claim 14, further comprising displaying the extent to which the at least one performance statistical quantity differs from the at least one reference statistical quantity on a display device.

Claims 17-24 (cancelled).

Claim 25 (previously presented): A system according to claim 4, wherein the display device displays a number corresponding to the number of times a performance of the balance task by the subject has fallen outside the reference range.

Claim 26 (currently amended): A system ~~according to claim 3~~ for detecting errors in balance related screening tests, the system comprising:

a force-plate for measuring forces to determine a quantity related to a stability factor of a balance task performed in trials by a subject under a plurality of distinct sensory conditions; and

a computation device in communication with the force-plate, the computational device

(i) receiving the quantity related to the stability factor for each trial,

(ii) determining a rank order for the quantities, each quantity for each trial being associated with a rank, and

(iii) determining if any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial performed under error-free conditions,

wherein measuring the quantity related to a stability factor includes following a modified CTSIB protocol.

Claim 27 (currently amended): A system ~~according to claim 3~~ for detecting errors in balance related screening tests, the system comprising:

a force-plate for measuring forces to determine a quantity related to a stability factor of a balance task performed in trials by a subject under a plurality of distinct sensory conditions; and

a computation device in communication with the force-plate, the computational device

(i) receiving the quantity related to the stability factor for each trial,

(ii) determining a rank order for the quantities, each quantity for each trial being associated with a rank, and

(iii) determining if any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial performed under error-free conditions,

wherein determining a rank order for the performance of the plurality of distinct tasks includes determining a rank order according to the level of difficulty of the balance tasks.

Claim 28 (new): A method according to claim 13, wherein the balance task is walking, standing, turning quickly, sitting, stepping, squatting, rhythmic weight shifting or lunging.

Claim 29 (new): A method according to claim 14, wherein the balance task is walking, standing, turning quickly, sitting, stepping, squatting, rhythmic weight shifting or lunging.

Claim 30 (new): A method according to claim 15, wherein the balance task is walking, standing, turning quickly, sitting, stepping, squatting, rhythmic weight shifting or lunging.